

Mainquist *et. al.*
Appl. No. 09/929,985
Page 9

Remarks

Status of the Application

Claims 1-15, 17-24, 27-35, and 37-42 are pending with the entry of this amendment. Claims 1-3, 6, 14 and 29-34 are amended herein.

The Amendments

The amendments to the claims do not add new matter to the application as originally filed.

The 35 USC § 112, Second Paragraph Rejections

Claims 29-34 stand rejected 35 USC § 112, first paragraph as allegedly being indefinite.

Claim 29 is rejected for lack of antecedent basis for "the support." Applicants have amended claim 29 to provide the required antecedent basis.

Claims 29 and 32 are rejected on an additional ground—that it is not clear what constitutes an additional component for performing high-throughput assays. Applicants respectfully submit that although the structures recited in claims 30-31 and 33-34 are among these additional components, claims 29 and 32 are not limited to these particular additional components. The "additional component" can be any component that is useful for high throughput screening, whether or not such component is specifically recited in the dependent claims.

Claims 30-31 are rejected because it is allegedly not clear whether the structures of these claims constitute the "additional component" recited in claim 29. Applicants have amended claims 30-31 to recited that the structures are the "additional components" of claim 29. Similar amendments were made to claims 33-34, which were rejected on similar grounds. These amendments are believed to obviate the rejections of claims 30-31 and 33-34.

Mainquist *et. al.*
Appl. No. 09/929,985
Page 10

The 35 USC § 102 Rejections

Claims 1-9, 12 and 29-30 remain rejected under 35 USC § 102(b) as allegedly being anticipated by Norris (US 5,592,289). In the instant Office Action, the Examiner pointed out that "if the claim does not require the alignment member(s) and microtiter plate to be in contact, the reference does not need to teach it to anticipate the claimed structure" (Office Action, page 9). Therefore, to overcome this rejection, Applicants have amended claim 1 to require that the first alignment member is actually in contact with the inner wall of a microtiter plate when the microtiter plate is in a desired position. Corresponding amendments are also made to claims 2, 3, 6, and 29. With these amendments, the claimed invention is distinguished from the device disclosed by Norris in that Applicants' invention "comprises at least a first alignment member that is in contact with an inner wall of the microtiter plate when the microtiter plate is in a desired position on the support" (claim 1). The device described by Norris has no such structural elements that are in contact with an inner wall of a microtiter plate.

Claims 1-2 and 12-15 and 17-18 remain rejected under 35 USC § 102(e) as allegedly being anticipated by Bevirt (US 6,063,579). In maintaining the rejection, the Office Action applies the same rationale as for Norris, discussed above. Therefore, the amendments discussed above which provide that the claimed positioning devices have an alignment member that is "in contact an inner wall of the microtiter plate when the microtiter plate is in a desired position on the support," overcome this rejection for each of rejected claims 1-2 and 12-13.

Claim 14, as amended herein, is directed to a retaining device for retaining a microtiter plate in a desired position on a support, wherein the retaining device comprises a vacuum plate that comprises: a) an interior surface, b) that is recessed relative to the lip surface and contacts a perimeter surface of a microtiter plate when the plate is placed in a desired position on the support, and c) a vacuum groove that is disposed between the lip surface and the interior surface. The interior surface is recessed relative to the lip surface. The device described in Bevirt does not have each of these elements. As shown in Figure 5 of Bevirt (reproduced below), the perimeter edge of the microtiter plate is not in contact with any structure of the positioner. Nor does the Bevirt device have a vacuum groove that is disposed between the lip

Mainquist *et. al.*
 Appl. No. 09/929,985
 Page 11

surface and the interior surface. Therefore, claim 14 as currently amended is not anticipated by Bevirt. Nor are claims 15, 17 or 18, each of which depends from claim 14.

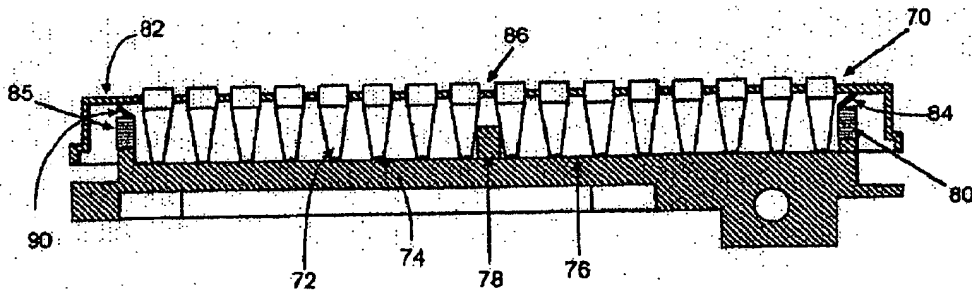


Fig. 5

Claims 1-12, 21-23, 29, 39-40 and 42 remain rejected under 35 USC § 102(b) as allegedly being anticipated by Burton (WO 99/04228) or Modlin (US 6,071,748). Applicants traverse this rejection because the cited references do not describe a positioning device in which, as required by amended independent claims 1, and 29 and also by previously amended independent claims 21 and 39, an alignment member is in contact with an inner wall of a microtiter plate when the microtiter plate is in a desired position. In contrast, the positioners described in the cited references have alignment members (shown in Fig. 22a-c as 604a,b and 606a,b) that contact the outer edges of the microtiter plate. See, e.g., column 20, lines 14-15 ("In analyzer 50, long sides of the rectangular sample container are positioned against flanges 604a,b."). In fact, the device described in the cited references have *no structures* that are capable of providing this contact with the inner wall of a microtiter plate. The examiner recognized in the Office action that this situation would preclude anticipation ("If the contact is not require by the claims then the capability to provide the contact is all that is required and *as long as the structure is capable of providing the contact*, the reference does not need to teach the contact to anticipate the claimed structure." Office Action, p. 9, emphasis added). Therefore, neither Modlin nor Burton anticipates any of these independent claims, or any claims that depend from these claims.

Claims 1, 3-5, 12, 29 and 31 remain rejected under 35 USC § 102(b) as allegedly being anticipated by Lancaster (US 3,568,735). Applicants respectfully submit that the amendments discussed above obviate this ground of rejection for the same reason as each of the

Mainquist *et. al.*
Appl. No. 09/929,985
Page 12

previous anticipation rejections: the cited reference does not describe a positioning device comprising an alignment member that is in contact an inner wall of a microtiter plate, as required by the claims as amended herein. Figure 6 of Lancaster shows that the sides of the locator contact the inside edge of the outer wall of the microtiter plate, and there is no structure in the Lancaster device that is even capable of contacting an inner wall of a microtiter plate. Since Lancaster does not describe a positioner in which an alignment member contacts an inner wall of a microtiter plate, the reference does not anticipate claim 1, or any of claims 3-5, 12, 29 and 31, each of which also include this claim element.

The 35 USC § 103(a) Rejections

Claims 13-15, 17-20, 24, 27-28, 30-35, 37-38 and 41 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Burton or Modlin, and further in view of Cathcart (US 5,443,791), Markin (US 5,417,922) and Bevirt (US 6,063,579). Applicants respectfully traverse this rejection.

Claims 13, 24, 27-28, 30-31, 35, 37-38 and 41 each depend from a claim that requires at least one alignment member that contacts an inner wall of the microtiter plate when the microtiter plate is in a desired position on a support. As discusses above, none of the cited Burton, Modlin, or Bevirt references teaches a device having such a structure. The Cathcart and Markin references likewise fail to teach such a device. Since not all claim elements are described in the cited references, the claims are not *prima facie* obvious.

Claims 14, 15, 17-20, and 32-34, with the amendments herein to claims 14 and 32, each recite, or depend from a claim that recites, that the device comprises a vacuum plate that comprises: i) an interior surface, ii) that is recessed relative to the lip surface and contacts a perimeter surface of a microtiter plate when the plate is placed in a desired position on the support, and iii) a vacuum groove that is disposed between the lip surface and the interior surface. The interior surface is recessed relative to the lip surface. Neither Burton nor Modlin describe a device that has such a structure, as discussed above. The Bevirt, Markin and Cathcart

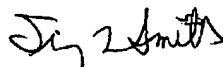
Mainquist *et. al.*
Appl. No. 09/929,985
Page 13

references likewise fail to teach a device having the claimed structure. Consequently, these claims are not obvious over the cited references.

Conclusion

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for examination. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned attorney at 858-812-1547.

Respectfully submitted,



Timothy L. Smith, Ph.D.
Reg. No. 35,367

GENOMICS INSTITUTE OF THE NOVARTIS RESEARCH FOUNDATION
10675 John Jay Hopkins Drive, Suite E225
San Diego, CA 92121
Tel: (858) 812-1547
Fax: (858) 812-1981